$$[(\sigma_x - c\varepsilon_x) - (\sigma - c\varepsilon) + 2/3k][(\sigma_y - c\varepsilon_y) - (\sigma - c\varepsilon) + 2/3\,k] = (\tau_{xy} - c\varepsilon_{xy})^2 \quad (xyz) \qquad (11)$$

where $\sigma = 1/3\,(\sigma_x + \sigma_y + \sigma_z), \quad \varepsilon = 1/3\,(\varepsilon_x + \varepsilon_y + \varepsilon_z).$

where σ and ε are the mean stress and strain, respectively, and the remaining relations are obtained by cyclic permutation of (xyz). The author then shows that the material is characterized by a hyperbolic system of thirteen equations for the quantities p, θ, ε_x, ε_{xy}, ω_x (xyz) consisting of the stress-strain relations:

$$d\varepsilon_x + d\varepsilon_y + d\varepsilon_z = 0$$

$$d\varepsilon_x + d\varepsilon_{xy}\frac{\sigma_y - c\varepsilon_y - \sigma + 2/3\,k}{\tau_{xy} - c\varepsilon_{xy}} + d\varepsilon_{xz}\frac{\sigma_z - c\varepsilon_z - \sigma + 2/3\,k}{\tau_{xz} - c\varepsilon_{xz}} =$$

$$= d\varepsilon_{xy}\frac{\sigma_x - c\varepsilon_x - \sigma + 2/3\,k}{\tau_{xy} - c\varepsilon_{xy}} + d\varepsilon_y + d\varepsilon_{yz}\frac{\sigma_z - c\varepsilon_z - \sigma + 2/3\,k}{\tau_{yz} - c\varepsilon_{yz}} =$$

$$= d\varepsilon_{xz}\frac{\sigma_x - c\varepsilon_x - \sigma + 2/3\,k}{\tau_{xz} - c\varepsilon_{xz}} + d\varepsilon_{yz}\frac{\sigma_y - c\varepsilon_y - \sigma + 2/3\,k}{\tau_{yz} - c\varepsilon_{yz}} + d\varepsilon_z \qquad (14)$$

the strain compatibility conditions:

$$\frac{\partial \omega_x}{\partial y} - \frac{\partial e_y}{\partial x} + \frac{\partial e_{yz}}{\partial y} = 0, \quad \frac{\partial \omega_x}{\partial z} + \frac{\partial e_z}{\partial y} - \frac{\partial e_{yz}}{\partial z} = 0 \quad (xyz) \qquad (11)$$

and the equations obtained by substituting

$$\sigma_x = p + 2k\cos^2\theta_x + ce_x, \quad \tau_{xy} = 2k\cos\theta_x\cos\theta_y + ce_{xy} \quad (xyz) \qquad (12)$$

into the equilibrium equations:

$$\frac{\partial \sigma_x}{\partial x} + \frac{\partial \tau_{xy}}{\partial y} + \frac{\partial \tau_{xz}}{\partial z} = 0 \qquad (xyz) \qquad (13)$$

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The characteristic surfaces ψ satisfy the equation

$$(\operatorname{grad}\psi n)[(2\operatorname{grad}\psi n)^2 - (\operatorname{grad}\psi)^2] = 0 \qquad (16)$$

where n is the unit vector $\cos\theta_x i + \cos\theta_y j + \cos\theta_z k$. The author also considers plane strain and starts from relations corresponding to Eq. (12) (13) (14) (15). The yield condition is taken as

$$[(\sigma_x - c\varepsilon_x) - (\sigma_y - c\varepsilon_y)]^2 + 4(\tau_{xy} - c\varepsilon_{xy})^2 = 4k^2, \qquad k, c = \text{const} \qquad (2)$$

This time a hyperbolic system of five equations is obtained as well as the equations for the characteristics. It is shown that along the characteristics relations hold which are generlizations of Hencky's. From the stress-strain relation, Geiringer's equations are seen to hold. The author concludes by

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On the Relations of the Law of Anisotropic Hardening of Plastic Material

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SOV/40-24-1-19/28

noting that a consideration of the combined effects of anisotropy and hardening can lead to a simplification of the mathematical problem. There are 6 references, 4 Soviet, 2 U.S. The U.S. references are: W. Prager, The Theory of Plasticity: A Survey of Recent Achievements, Proc. Inst. Mech. Eng., 169, 41 (1955); R. Shield, H. Ziegler, On Prager's Hardening Rule, ZAMP, 9a (1958).

SUBMITTED: November 24, 1959

Card 5/5

IVLEV, D.D. (Voronezh)

Theory of flat deformation of hardening plastic material. Prikl. mat. i mekh. 24 no.4:707-710 Jl-Ag '60. (MIRA 13:9)
(Deformations (Mechanics)) (Plasticity)

S/040/60/024/005/023/028
C111/C222

AUTHOR: Ivlev, D.D. (Voronezh)

TITLE: On the Extremal Properties of the Conditions of Plasticity

PERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol.24, No.5, pp.951-955

TEXT: The present paper essentially has a polemic character and is directed against a paper of S.A.Shesterikov (Ref.10).
At first the author summarizes his earlier results (especially (Ref.7)) and formulates his point of view:
In the theory of the homogeneous, ideally incompressible, normally isotropic (the body is called normally isotropic if the flow limits are equal for dilatation and compression, and a change of signs of the tensions involves a change of signs of the shifts) rigid-plastic body there exists a single true plasticity condition (fundamental assumption).
The qualitative behavior of yielding metals being little different from ideal-plastic metals, and experiments which have proved that the more characteristic the flowing surface of the metal the better the Tresca - condition is satisfied, point to the fact that this true plasticity condition is that of Tresca.
There exist energy criteria which out of the class of possible plasticity
Card 1/2

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S/020/60/130/06/015/059
B013/B007

AUTHOR: Ivlev, D. D.

TITLE: The Equations of Linearized Space Problems in the Theory of Ideal Plasticity

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 6, pp 1232 - 1235 (USSR)

ABSTRACT: The present article investigates the equations of the simplest linearized space problems. The author first investigates a beam with quadratic cross section, in which flat sections have been cut out. The z-axis is assumed to be directed along the beam, the x- and y-axes, to be perpendicular to the surfaces. The author investigates the plastic flow of the beam under the influence of tensile forces along the z-axis. The frontal surfaces of the beam have the length 2a. The equations for the sides of the beam are given in the form $x = \pm[a - \delta f(z)]$, $y = \pm[a - \delta f(z)]$, where the small parameter δ characterizes the depth of the cut-out section. The solution is set up in the form $\sigma_x = \sigma_x^o + \delta\sigma_x'$, ...; $\varepsilon_x = \varepsilon_x^o + \delta\varepsilon_x'$, ...; $u = u^o + \delta u'$, ... Here, σ_x,.... denote the components of

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The Equations of Linearized Space Problems in the Theory of Ideal Plasticity S/020/60/130/06/015/059 B013/B007

stress, ε_x,..... - the components of deformation; u,... - the components of the displacement rate. In the case of a perfectly plastic material of the beam, it is possible, through generalization of the relations found by M. Levi, to write as follows:

$$\sigma_x = \sigma - \frac{2}{3}k + 2k\cos^2\varphi_1, \quad \sigma_y = \sigma - \frac{2}{3}k + 2k\cos^2\varphi_2$$

$$\sigma_z = \sigma - \frac{2}{3}k + 2k\cos^2\varphi_3, \quad \tau_{xy} = 2k\cos\varphi_1\cos\varphi_2,$$

$$\tau_{xy} = 2k\cos\varphi_2\cos\varphi_3, \quad \tau_{zx} = 2k\cos\varphi_3\cos\varphi_1,$$

where k denotes the flow limit with respect to shearing, and where $\sigma = \frac{1}{3}(\sigma_x + \sigma_y + \sigma_z)$ holds. In the case under investigation, the solution is to be sought near the unperturbed state $\sigma_z^o = 2k$, $\sigma_x^o = \sigma_y^o = \tau_{xy}^o = \tau_{yz}^o = \tau_{zx}^o = 0$; $\varepsilon_x^o = \varepsilon_y^o = \varepsilon_z^o = \varepsilon_{xy}^o = \varepsilon_{yx}^o = \varepsilon_{zx}^o = u^o = v^o = w^o = 0$. By substituting one obtains $\sigma_x' = \sigma_y' = \sigma_z' = \sigma'$, $\tau_{xy}' = 0$. From the equations of equilibrium

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The Equations of Linearized Space Problems in the Theory of Ideal Plasticity S/020/60/130/06/015/059 B013/B007

$\frac{\partial\sigma'}{\partial x} + \frac{\partial\tau'_{xz}}{\partial z} = 0$, $\frac{\partial\sigma'}{\partial y} + \frac{\partial\tau'_{yz}}{\partial z} = 0$, $\frac{\partial\tau'_{xz}}{\partial x} + \frac{\partial\tau'_{yz}}{\partial y} + \frac{\partial\sigma'}{\partial z} = 0$ one obtains with $\sigma' = \frac{\partial U}{\partial z}$, $\tau'_{xz} = -\frac{\partial U}{\partial x}$, $\tau'_{yz} = -\frac{\partial U}{\partial y}$ the equation $\frac{\partial^2 U}{\partial x^2} + \frac{\partial^2 U}{\partial y^2} - \frac{\partial^2 U}{\partial z^2} = 0$. The boundary conditions are then given and linearized. The definition region of the solution is symmetric with respect to the intersection of the plane $z = 0$ with the beam. The solutions must satisfy the conditions of conjugateness. Next, the equations for the field of the displacement rates are investigated: From $\frac{\partial u'}{\partial z} + \frac{\partial w'}{\partial x} = 0$, $\frac{\partial v'}{\partial z} + \frac{\partial w'}{\partial y} = 0$ one obtains with $u' = \frac{\partial W}{\partial x}$, $v' = \frac{\partial W}{\partial y}$, $w' = -\frac{\partial W}{\partial z}$ the equation $\frac{\partial^2 W}{\partial x^2} + \frac{\partial^2 W}{\partial y^2} - \frac{\partial^2 W}{\partial z^2} = 0$. The author deals also with the corresponding boundary conditions. Finally, he investigates

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S/020/60/135/002/C09/036
B019/B077

AUTHOR: Ivlev, D. D.

TITLE: Construction of the Hydrodynamics of a Viscous Fluid

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 2, pp. 280 - 282

TEXT: The author studied the general relation between the deformation tensor (ε_{ij}) and the stress tensor (σ_{ij}) of an isotropic, incompressible, viscous fluid for which Newton's law holds. The assumptions made reduce this problem to that of an incompressible, elastic body where Hook's law holds for shear only. (ε_{ij}) denotes the deformation tensor and μ the shear modulus. A potential of the deformation rate is introduced which is given as $U = \frac{\Sigma_2}{12\mu} + \Phi(\Sigma_2, |\Sigma_3|)$ (12). Σ_2 and Σ_3 are the second and third invariants of the stress tensor "deviators" which are represented as

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Construction of the Hydrodynamics of a Viscous Fluid S/020/60/135/002/009/036
B019/B077

$\sum_2 = (\sigma_{11}-\sigma_{22})^2 + (\sigma_{22}-\sigma_{33})^2 + (\sigma_{33}-\sigma_{11})^2 + 6(\sigma_{12}^2+\sigma_{23}^2+\sigma_{31}^2)$

$\sum_3 = s_{11}s_{22}s_{33} + 2\sigma_{12}\sigma_{23}\sigma_{31} - s_{11}\sigma_{23}^2 - s_{22}\sigma_{31}^2 - s_{33}\sigma_{12}^2$, where $s_{ii} = \sigma_{ii}-\sigma$ and $\sigma = \frac{1}{3}(\sigma_{11}+\sigma_{22}+\sigma_{33})$. Under these conditions the components of the deformation tensor can be obtained from $\varepsilon_{ij} = \frac{\partial U}{\partial \sigma_{ij}}$ $(i = j)$ and $2\varepsilon_{ij} = \frac{\partial U}{\partial \sigma_{ij}}$ $(i \neq j)$. There are 1 figure and 4 references: 2 Soviet and 2 US.

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

PRESENTED: June 15, 1960, by L. I. Sedov, Academician

SUBMITTED: May 25, 1960

Card 2/2

IVLEV, D.D (Voronezh)

State of spherical deformation of plastic media. PMTF no.1:72-75 Ja-F '61. (MIRA 14:6,

1. Voronezhskiy gosudarstvennyy universitet.
(Deformations (Mechanics)) (Plastics)

BYKOVTSEV, G.I. (Voronezh); IVLEV, D.D. (Voronezh)

Determining critical loading for bodies pressed in a plastic medium. Izv. AN SSSR. Otd. tekh.nauk.Mekh. i mashinostr. no. 1:173-174 Ja-F '61. (MIRA 14:2)
(Plasticity)

IVLEV, D.D. (Voronezh)

Torsion of helical rods made of an ideal rigidly plastic material.
Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.5:124-126 S-O '61. (MIRA 14:9)

1. Voronizhskiy gosuniversitet.
(Elastic rods and wires)

ZHALNIN, V.A. (Voronezh); IVLEV, D.D. (Voronezh); MISHCHENKO, V.S. (Voronezh)

Insertion of an annular stamp into a half-space. PMTF no.6:153-154 N-D '61. (MIRA 14:12)

(Deformations (Mechanics))
(Plasticity)

IVLEV, D.D. (Moskva)

Double numbers and their functions. Mat.pros.no.6:197-203 '61. (MIRA 15:3)

(Numbers, Theory of)

IVLEV, D.D. (Voronezh)

Some remarks on the theory of non-homogeneous plastic media (The three-demensional problem). Archiw mech 13 no.2:203-211 '61.

1. State University, Voronezh, USSR., Chair of Electicity and Plasticity.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619320008-2"

IVLEV, D.D. (Vorpnezh)

Determining the surface of a bulging material resulting from the insertion of a thin blade into a plastic half-space. Prikl. mat. i mekh. 25 no.2:332-335 Mr-Ap '61. (MIRA 14:5)

1. Voronezhskiy gosudarstvennyy universitet.
(Plasticity) (Surfaces, Deformation of)

IVLEV, D.D. (Voronezh)

Mathematical description of the behavior of an elastic isotropic body with the aid of the piecewise-linear potential. Prikl. mat. i mekh. 25 no.5:897-905 S-O '61. (MIRA 14:10)

1. Voronezhskiy gosudarstvennyy universitet.
(Elasticity)

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S/040/61/025/006/016/021
D299/D304

AUTHORS: Ivlev, D.D., and Martynova, T.N. (Voronezh)

TITLE: Compressibility and the theory of ideal plastic materials

PERIODICAL: Prikladnaya matematika i mekhanika, v. 25, no. 6, 1961, 1126 - 1128

TEXT: The effect of the compressibility of ideal plastic materials is considered. The von Mises theorem on the associated rule of plastic flow, is generalized. An isotropic plastic body is considered, subjected to a load. The stress components are denoted by σ_{ij}, the strain components - by e_{ij}. Thereupon

$$dA = \sigma_{ij}de_{ij} = \sigma_{ij}de_{ij}' + 3\sigma de, \qquad (1.3)$$

where the prime denotes the components of the deviator tensor. Following von Mises, the extremum of (1.3) is sought, assuming that only the stress components vary. Thus one obtains

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$$e_{ij}' = \lambda \left(\frac{\partial \Phi}{\partial \Sigma_2} \frac{\partial \Sigma_2}{\partial \sigma_{ij}} + \frac{\partial \Phi}{\partial \Sigma_3} \frac{\partial \Sigma_3}{\partial \sigma_{ij}} \right), \quad e_{ij} = \frac{de_{ij}}{dt}, \ \lambda = \frac{d\lambda_1}{dt} \tag{1.8}$$

Hence the following theorem is formulated: If the associated rule of plastic flow is determined on the basis of the extremum condition for Eq. (1.3), then the components of the deviator of the strain rates are directly proportional to the partial derivatives with respect to the stress components, whereby the expression (1.8) for the associated rule of plastic flow is entirely independent of the law of compressibility. As an example, plane deformation of an ideal plastic material is considered, under plasticity conditions

$$(\sigma_x - \sigma_y)^2 + 4\tau_{xy}^2 = 4c^2, \ (c = \text{const}). \tag{2.1}$$

It is found that compressibility has no effect whatsoever on the stresses. It is noted that if no restrictions are imposed from the very outset on the compressibility, the associated rule of plastic flow is expressed by

$$\varepsilon_{ij} = \lambda \frac{\partial \Phi}{\partial \sigma_{ij}} \tag{3.1}$$

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Compressibility and the theory ...

It is further noted that, in general, the deviator components can be considered as independent of the components which characterize volume deformation. There are 1 figure and 5 references: 2 Soviet-bloc and non-Soviet-bloc. The references to the English-language publications read as follows: W. Prager, Elastic solids of limited Compressibility, Actes IX c. Int. de mec. Appl., Bruxelles. 1957, v. W. Prager, On ideal locking materials. Trans. Soc. Rheology, 1957, 1.

SUBMITTED: May 16, 196.

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S/020/61/138/006/008/019
B104/B214

AUTHOR: Ivlev, D. D.

TITLE: The development of the theory of elasticity

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 6, 1961, 1321-1324

TEXT: The author studies the development of the theory of elasticity of an isotropic body for small deformations following Hooke's law and occurring in simple experiments (tensile test, pure shear, uniform compression). It is shown that under the assumption made it is possible to build up a sufficiently large class of relations of the theory of elasticity. It is assumed that the isotropic elastic body studied here behaves similarly under compression and tension except for the change of sign. All bodies corresponding to this assumption are designated as normal isotropic bodies. The deformation potential of such bodies can be represented in the form $U = U(|\sigma|, \Sigma_2, |\Sigma_3|)$ (2), where σ is the first invariant of the stress tensor, and Σ_2 and Σ_3 are the second and the third invariants of the stress deviator

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$$\sigma = {}^1/_3\,(\sigma_x + \sigma_y + \sigma_z),$$

$$\Sigma_2 = (\sigma_x - \sigma_y)^2 + (\sigma_y - \sigma_z)^2 + (\sigma_z - \sigma_x)^2 + 6\,(\tau_{xy}^2 + \tau_{yz}^2 + \tau_{zx}^2), \qquad (3)$$

$$\Sigma_3 = s_x s_y s_z + 2\tau_{xy}\tau_{yz}\tau_{zx} - s_x\tau_{yz}^2 - s_y\tau_{zx}^2 - s_z\tau_{xy}^2,$$

where: $s_x = \sigma_x - \sigma$.

From (2) and (3) and the relation $\mathcal{E}_{ij} = \partial U/\partial\sigma_{ij}$ (σ_{ij} are the stress components and $\mathcal{E}_{ij}$ the deformation components) the author obtains:

$$e_x = \frac{1}{3}\frac{\partial U}{\partial \sigma} + 2\frac{\partial U}{\partial \Sigma_2}(2\sigma_x - \sigma_y - \sigma_z) + \frac{\partial U}{\partial |\Sigma_3|}(\operatorname{sign}\Sigma_3)\left(s_y s_z - \tau_{yz}^2 + \frac{1}{18}\Sigma_2\right), \ldots$$

$$e_{xy} = 12\frac{\partial U}{\partial \Sigma_2}\tau_{xy} + 2\frac{\partial U}{\partial |\Sigma_3|}(\operatorname{sign}\Sigma_3)(\tau_{yz}\tau_{zx} - s_z\tau_{xy}), \ldots \qquad (4)$$

The remaining equations are obtained by cyclic interchange of the indices in these two equations. It is assumed that the volume compression is

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The development of the theory of ...

directly proportional to the mean stress: $\sigma = 3K\varepsilon$; $\varepsilon = \frac{1}{3}(\varepsilon_x + \varepsilon_y + \varepsilon_z)$ (5). Then one obtains from (4): $3\varepsilon = \partial U/\partial\sigma$ (6). From (5) and (6) is obtained: $\partial U/\partial\sigma = \sigma/K$, $U = \frac{\sigma^2}{2K} + \Phi(\Sigma_2, \Sigma_3)$ (7). It is assumed that for a one-sided tension (compression) the Hooke's law holds:

$$\begin{aligned} &\sigma_x = E\varepsilon_x, \quad \sigma_y = \sigma_z = \tau_{xy} = \tau_{yz} = \tau_{zx} = 0, \\ &\varepsilon_y \neq 0, \quad \varepsilon_z \neq 0, \quad \varepsilon_{xy} = \varepsilon_{yz} = \varepsilon_{zx} = 0. \end{aligned} \tag{8}$$

Then from (4), (7) and (8) one obtains:

$$\begin{aligned} \varepsilon_x &= \frac{1}{9K}\sigma_x + 4\frac{\partial\Phi}{\partial\Sigma_2}\sigma_x + \frac{2}{9}\frac{\partial\Phi}{\partial|\Sigma_3|}(\mathrm{sign}\,\Sigma_3)\,\sigma_x^2, \\ \varepsilon_y &= \frac{1}{9K}\sigma_x - 2\frac{\partial\Phi}{\partial\Sigma_2}\sigma_x - \frac{1}{9}\frac{\partial\Phi}{\partial|\Sigma_3|}(\mathrm{sign}\,\Sigma_3)\,\sigma_x^2, \\ \varepsilon_z &= \frac{1}{9K}\sigma_x - 2\frac{\partial\Phi}{\partial\Sigma_2}\sigma_x - \frac{1}{9}\frac{\partial\Phi}{\partial|\Sigma_3|}(\mathrm{sign}\,\Sigma_3)\,\sigma_x^2. \end{aligned} \tag{9}$$

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From (9) it follows that for one-sided tension (compression) $\varepsilon_y = \varepsilon_z$; also $\varepsilon_y = \varepsilon_z = -\nu\varepsilon_x$, where ν is the Poisson ratio. From (5) and (8) one obtains $K = E/3(1-2\nu)$. The sum of the three equations (9) is identically zero. The first of these three equations is considered independent and written in the form:

$$\frac{\sigma_x}{E} = \frac{\sigma_x}{9K} + 4\frac{\partial\Phi}{\partial\Sigma_2}\sigma_x + \frac{2}{9}\frac{\partial\Phi}{\partial|\Sigma_3|}(\operatorname{sign}\Sigma_3)\sigma_x^2, \qquad (11).$$

From this follows for one-sided tension (compression): $\Sigma_2 = 2\sigma_x^2$, $\Sigma_3 = \frac{2}{27}\sigma_x^3$. In the further studies the author shows that the limitations imposed by the simple experiments do not permit the determination of the kind of relationship between σ_{ij} and ε_{ij} in an isotropic elastic body. The usual generalization of the Hooke's law in publications makes use of the assumption: $\Phi = \Phi(\Sigma_2)$. However, one cannot conclude a priori that the

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The development of the theory of ... S/020/6·/·38/006/008/019
B104/B2·4

deformation potential is independent of the third invariant of the stress deviator. The author is of the view that the whole material of the simple experiments represents the relation between σ_{ij} and σ_{ij}. The problem of finding the true relationship of σ_{ij} and σ_{ij} consists in the determination of all possible correlations under the given limitations and separation of the natural correlations by a suitable formulation of the variation problem. The author thanks L. I. Sedov and M. E. Eglit for valuable advice. There are 5 Soviet-bloc references.

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

PRESENTED: February 2, 1961, by L. I. Sedov, Academician

SUBMITTED: February 1, 1961

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S/179/62/000/006/013/022
E199/E442

AUTHOR: Ivlev, D.D. (Voronezh)

TITLE: The theory of limiting equilibrium of shells of revolution with piecewise-linear plasticity conditions

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no.6, 1962, 95-102

TEXT: The paper, which is a continuation of previous work (Prikl. matem. i mekhanika, no. 6, 1958, 22) is a development of E.Onat and V.Prager's approach to the synthesis of the flow surface of a shell of revolution subjected to the Tresca yield condition (Collection "Mekhanika", no.5, IL, 1955). In the present paper, the material is assumed to obey the conditions of maximum reduced stress. Since all possible conditions of flow of an isotropic incompressible material are included between the plasticity conditions of maximum shear stress and of maximum reduced stress, the solutions obtained under these flow conditions determine the upper and lower limits of all possible solutions. It is shown that if the flow surface is derived in terms of

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The theory of limiting ... S/179/62/000/006/013/022
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generalized forces for any one piecewise-linear plasticity condition, the remaining flow conditions can be obtained from it by elementary transformations. There are 5 figures.

SUBMITTED: August 20, 1962

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JD/HW
ACCESSION NR: AP3002812 S/0207/63/000/003/0102/0104

61

AUTHORS: Ivlev, D. D.; Marty*nova, T. N. (Voronezh)

TITLE: Condition of total plasticity for an axi-symmetric state

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SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1963, 102-104

TOPIC TAGS: plasticity, plastic flow, statically determined, approximate equation, axi-symmetric state

ABSTRACT: In the study of problems of plastic flow of an ideal-plastic substance, great simplification in solution is attained by consideration of the use of piecewise-linear approximations of the conditions of flow (condition of Tresk, condition of maximal reduced stress, etc.). G. O. Genki (O nekotory*kh staticheski opredelimy*kh sluchayakh ravnovesiya v plasticheskikh telakh. Sb. "Teoriya plastichnosti," M., IL, 1948.) has shown that if the stressed state corresponds to the edge of a prism, interpreting Tresk's condition of plasticity in the space of principal stresses (condition of total plasticity), then the problem of determining stresses is statically determined. The authors consider relations of an axi-symmetric problem of a rigid-plastic nonmoving substance when the stressed and deformed states correspond to the edge of an arbitrary, piecewise-linear surface of flow

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interpreting the condition of plasticity in the space of principal stresses. They show that in this case the problem of finding the stresses is also statically determined. The solution of axi-symmetric problems under a condition of total plasticity (conditions of correspondence of the stresses and deformed states to the edges of piecewise-linear conditions of flow) makes it possible to find upper and lower bounds of solutions. Orig. art. has: 13 formulas and 1 diagram.

ASSOCIATION: none

SUBMITTED: 21Jan63 DATE ACQ: 16Jul63 ENCL: 00

SUB CODE: AP NO REF SOV: 005 OTHER: 000

Card 2/2

DUDUKALENKO, V.V. (Voronezh); IVLEV, D.D. (Voronezh)

Torsion of prismatic rods made of hardening material under linearized plasticity conditions. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.3:115-118 My-Je '63. (MIRA 16:8)

1. Voronezhskiy gosudarstvennyy universitet.
(Elastic rods and wires) (Torsion)

IVLEV, D.D. (Voronezh); MARTYNOVA, T.N. (Voronezh)

Limiting state of axisymmetric bodies under conditions of resistance to shear and separation. Izv.AN SSSR. Mekh. i mashinostr. no.4: 79-85 Jl-Ag '63. (MIRA 17:4)

BEREZHNOY, I.A. (Voronezh); IVLEV, D.D. (Voronezh)

Torsion of prismatic rods from ideally plastic material taking microstress into account. PMTF no.5:154-157 S-O '63.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619320008-2"

DUDUKALENKO, V.V. (Voronezh); IVLEV, D.D. (Voronezh)

Torsion of anisotropically hardening prismatic rods under the linearized law of plastic flow. Izv.AN SSSR.Mekh. i mashinostr. no.5:173-175 S-O '63. (MIRA 16:12)

1. Voronezhskiy gosudarstvennyy universitet.

ZNAMENSKIY, V.A. (Voronezh); IVLEV, D.D. (Voronezh)

Equations for a viscoplastic solid at piecewise linear potentials. Izv. AN SSSR. Mekh. i mashinostr. no.6:12-16 N-D '63. (MIRA 17:1)

IVLEV, D.D. (Voronezh); MARTYNOVA, T.N. (Voronezh)

Theory of compressible ideally plastic media. Prikl. mat. i mekh. 27 no.3:589-592 My-Je '63. (MIRA 16:6)

(Plasticity)
(Deformations(Mechanics))

IVLEV, D.D.

On the theory of compound media. Dokl. AN SSSR 148 no.1:64-67 Ja '63. (MIRA 16:2)

1. Voronezhskiy gosudarstvennyy universitet. Predstavleno akademikom A.Yu. Ishlinskim.
(Strains and stresses)

DUDUKALENKO, V.V.; IVLEV, D.D.

Compression of a strip from case-hardening plastic material by rigid rough plates. Dokl. AN SSSR 153 no.5:1024-1026 D '63. (MIRA 17:1)

1. Voronezhskiy gosudarstvennyy universitet. Predstavleno akademikom Yu.N. Rabotnovym.

ZNAMENSKIY, V.A.; IVLEV, D.D. (Voronezh)

"On the equations of visco-plastic flow for piecewise-linear potentials"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

S/0179/64/000/004/0077/0086

ACCESSION NR: AP4043892

AUTHOR: Ivlev, D. D., Listrova, Yu. P., Nemirovskiy, Yu. V.

TITLE: Limit design of laminated plates and shells of revolution

SOURCE: AN SSSR. Izvestiya. Mekhanika i mashinostroyeniye, no. 4, 1964, 77-86

TOPIC TAGS: airfoil design, limit design, airfoil limit design, laminated plate, shell of revolution, shell stability, cylindrical shell

ABSTRACT: Many investigations have considered the carrying capacity of plates and shells of revolution. The theory has been simplified significantly by consideration of laminated models. The limit design of reinforced plates and cylindrical shells has also been considered with the shell consisting of two layers. In the present paper, reinforced shells are considered as laminated shells, and shells of revolution are analyzed, particularly cylindrical shells. These shells have sets of meridional and annular diaphragms. Fig. 1. in the Enclosure shows the different structural members. In this figure, a_1, b_1 and c_1 may be replaced by a_2, b_2, and c_2 and eventually by the multi-laminar structures a_3, b_3 and c_3. First, a_1 is considered. This can be replaced by the models in Fig. 2 of the

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Enclosure. The upper layer is taken as the skin and the other two layers are diaphragms. If the limit resistance under tension-compression for the structures shown in Figs. 2a and 2b coincide:

$$n_{0i} = kl_i\delta + k_iH_is_i = k'l_i\delta' + k_i'(l_il_i^+ + l_il_i^-) \quad (i = 1, 2) \tag{1}$$

After transformations:

$$k_i^* + k_i^{**} = \frac{k_iH_is_i}{l_i} \quad (i = 1, 2) \tag{2}$$

where k' is the yield point of the skin and k_i' (with i=1, 2) are the yield points of the layers replacing the diaphragms. Further, the authors find the limit moments (Fig. 2a):

$$M_{0i} = {}^1/_2 s_ik_i'z_i^2 + {}^1/_2 s_ik_i(H_i - z_i)^2 + {}^1/_2 kl_i[(H_i - z_i + \delta)^2 - (H_i - z_i)^2] \quad (i = 1, 2) \tag{3}$$

Equations are then evolved for the other types of structures considered. The creep surfaces of laminated shells are plotted on the basis of methods developed by V. Prager. Considering that the skin material follows the plastic conditions of Tresk (see Fig. 3 in

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in the Enclosure) and that D is the dissipation of mechanical work per unit of time for a deformed shell, we obtain

$$D = \frac{1}{2}k^* (|\varepsilon_1^+| + |\varepsilon_2^+| + |\varepsilon_1^+ + \varepsilon_2^+|) + (k_1^+|\varepsilon_1^+| + k_2^+|\varepsilon_2^+|) + + (k_1^{**}|\varepsilon_1^-| + k_2^{**}|\varepsilon_2^-|) \qquad (4)$$

where ε_1 and ε_2 are the deformation rates. On the basis of approximations described by P. G. Hodges, Jr. the creep surface is plotted as the intersection of the creep surfaces without moments and with pure moments. Under maximum stress without moments, the creep surface is:

$$N_1 = \frac{1}{3}k^* [\mathrm{sign}(e_{10} + 2e_{20}) + 2\,\mathrm{sign}(2e_{10} + e_{20}) - \mathrm{sign}(e_{20} - e_{10})] + + (k_1^* + k_1^{**})\,\mathrm{sign}(e_{10})$$

$$N_2 = \frac{1}{3}k^* [2\,\mathrm{sign}(e_{10} + 2e_{20}) + \mathrm{sign}(2e_{10} + e_{20}) + + \mathrm{sign}(e_{20} - e_{10})] + (k_2^* + k_2^{**})\,\mathrm{sign}(e_{20}) \qquad (5)$$

The limit condition of cylindrical shells under axial load is also considered in the paper. The polyhedrow shown in Fig. 4 of the Enclosure is plotted on the basis of the Tresk creep

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condition and the previously mentioned dissipation, and parameters for the models are tabulated. Orig. art.has: 10 figures, 29 equations and 5 tables.

ASSOCIATION: none

SUBMITTED: 04Feb63 ENCL: 004

SUB CODE: AS NO REF SOV: 009 OTHER: 003

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619320008-2"

ACCESSION NR: AP4043892

ENCLOSURE: 01

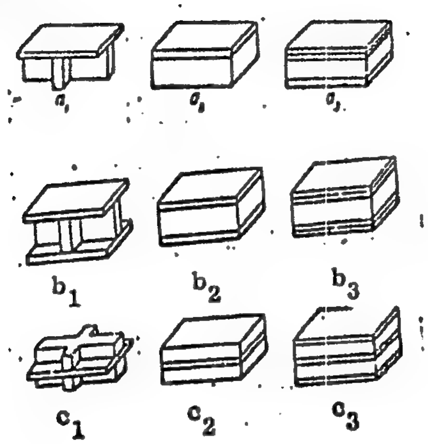

Figure 1.

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ACCESSION NR: AP4043892

ENCLOSURE: 02

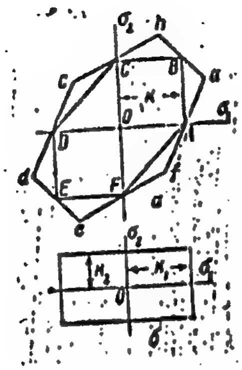

Figure 2.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619320008-2"

ACCESSION NR: AP4043892 ENCLOSURE: 03

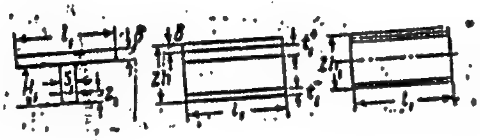

Figure 3.

Card 7/8

IVLEV, D.D.; LISTROVA, Yu.P.; NEMIROVSKY, Yu.V.

Theory of the limiting state of laminated plates and shells of revolution. Izv. AN SSSR Mekh. i mashinostr. no.4: 77-86 '64 (MIRA 17:8)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619320008-2"

IVLEV, D.D. [Ivliev, D.D.] (Voronezh); LEGENYA, I.D. [Lehenia, I.D.] (Vorenezh)

Stability of a plate subjected to small deformations in the general case of the nonlinear deformation theory. Prykl. mekh. 10 no.2:117-123 '64. (MIRA 17:7)

1. Voronezhskiy gosudarstvennyy universitet.

BYKOVTSEV, G.I. (Voronezh); DUDUKALENKO, V.V. (Voronezh); IVLEV, D.D. (Voronezh).

Functions of loading of an anisotropically hardening plastic material. Prikl. mat. i mekh. 28 no.4:794-797 Jl-Ag '64. (MIRA 17:8)

BYKOVTSEV, G.I. (Voronezh); IVLEV, D.D. (Voronezh); MARTYNOVA, T.N. (Voronezh)

Properties of general equations in the theory of an isotropic ideally plastic body with piecewise-linear potentials. Izv. AN SSSR. Mekh. no.1:56-63 Ja-F '65. (MIRA 18:5)

IVLEV, D.D.; MARTYNOVA, T.N.

Properties of general equations in the ideal plasticity theory. Dokl. AN SSSR 164 no.4:764-767 O '65. (MIRA 18:10)

1. Voronezhskiy gosudarstvennyy universitet. Submitted March 10, 1965.

Ivlev, G.F.

68-10-3/22

AUTHOR: Ivlev, G.F. (Cand.Tech.Sc.)

TITLE: A Laboratory Method for the Preparation of Blends for Coking (Laboratornyy metod sostavleniya shikht dlya koksovaniya)

PERIODICAL: Koks i Khimiya, 1957, Nr 10, pp.9-10 (USSR)

ABSTRACT: Methods used for the evaluation of the caking properties of coals are reviewed. The evaluation of caking properties of coals used on the Kuznetsk Metallurgical Combine by the modified IGI AN SSSR and plastometric methods (swelling up to 470°C) is given in Table 1. It was observed by the above combine that good coke is produced if the swelling index of blends is about 40. Experimental laboratory work on the relationship between the composition and swelling index of blends was carried out. It was found that this relationship is usually linear. On the basis of results obtained the amount of good caking coals which should be added per each percent of poor caking coals in order to produce a blend with a swelling index of 40 was calculated (Table 2). It is pointed out that the calculated values can be used for guidance in the preparation of blends. There are 2 tables and

Card 1/2

IVLEV, G.F., dots., kand.khim.nauk

Expanding the range of coals for coking in the Kuznetsk Basin. Izv.vys.ucheb.zav.; chern.met. no.8:167-169 Ag '58. (MIRA 11:11)

1. Sibirskiy metallurgicheskiy institut. (Kuznetsk Basin--Coke)

S/119/61/000/002/007/011
B116/B203

AUTHORS: Ivlev, I. F. and Yastrebtsov, O. F.

TITLE: Device for grinding thin plates made of semiconductor materials on both sides

PERIODICAL: Priborostroyeniye, no. 2, 1961, 19-20

TEXT: The authors describe a device developed at the Institut avtomatiki i elektrometrii Sibirskogo otdeleniya AN SSSR (Institute of Automation and Electrometry of the Siberian Department of the AS USSR). It is used for grinding thin semiconductor plates on both sides at the same time. The design of this device is based on the scheme shown in Fig. 1. The plates 1 to be ground are placed into the cells of cage 2. The cage is arranged between the two grinding wheels, the upper one 3 and the lower one 4, for lapping. The working surfaces of these wheels are plane, polished, and made of stainless steel. The lower one is rigidly fixed, and has an outer ring 5. The upper wheel rotates eccentrically by means of an eccentric at 30-140 rpm. The cage performs a complex motion in grinding. It rolls off on the inner circumference of the outer ring of the lower wheel. This is achieved with

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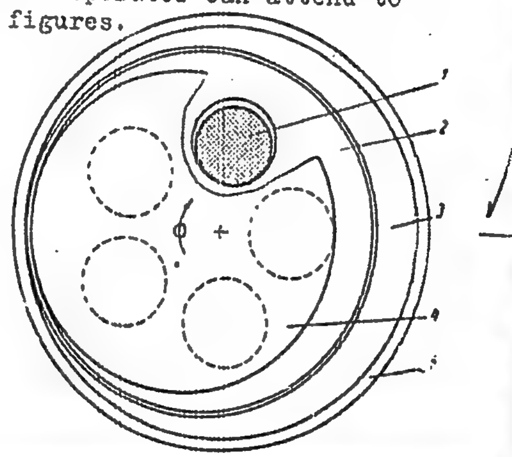
the aid of a 2.5-3mm high flange on the cage circumference and by an appropriate selection of cage diameter and eccentricity according to the grinding wheel diameter. A slit about 1 mm wide must be provided between the upper grinding wheel and the outer ring. The eccentric bolt must not exert a vertical pressure on the upper grinding wheel. The required pressure on the surfaces to be ground is generated by the weight of the upper grinding wheel and by additional weights. The final thickness of the ground plates is equal to the cage thickness. Fig. 2 shows a side view of the device. The support 1 carries the faceplate 2 with the lower grinding wheel 3 and the outer ring 4. The latter has twelve 2.5 mm full-length borings 5 on its circumference; 6 is a packing, 7 is the cage made of acetyl cellulose; 8 is the upper grinding wheel. The excess abrasive can flow off through a boring into the base 9. The eccentric 11 with bolt 12 and counterweight 13 is attached to the lower end of spindle 10. The eccentric bolt moves freely in the bronze bushing 14 of the upper grinding wheel. The required pressure on the plates during grinding is attained with the aid of the weights 15. The spindle is driven by an electric motor 16 (0.27 kw at 1400 rpm) via belt drive 17 with three speeds and a two-stage gearing 18. The spindle is held in lowest position by means of thrust collar 19. After grinding, the spin-

Device for ... S/119/61/000/002/007/011
B116/B203

dle is lifted to top position, and held there by a rest 20 (engaging in the annular groove 21). The spindle rotates at 30, 75, and 140 rpm. On the basis of experience gained, the following was found: within one lot, the plates to be ground (5-6 pieces) should be sorted by thickness; to prevent a destruction of the plates, grinding should be started at minimum pressure and spindle speed; it is not necessary to divide the grinding process into two operations, rough grinding and finishing. One operator can attend to several devices at the same time. There are 2 figures.

Legend to Fig. 1: Diagram of the device for grinding thin plates on both sides.



Card 3/4

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619320008-2"

Device for ...

S/119/61/000/002/007/011
B116/B203

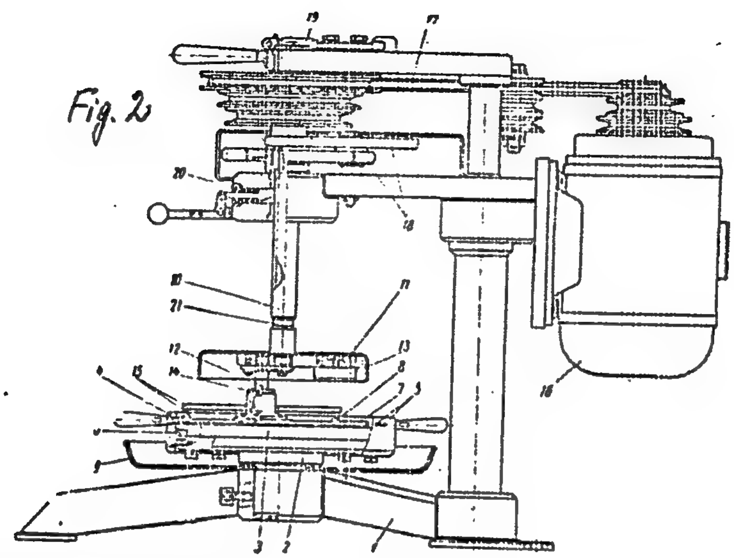


Fig. 2

Card 4/4

KRIVONOS, P.F.; IVLEV, I.M., obshchiy red.

[Combined railroad, automobile, and water transportation; experience gained in the operation of the Southwestern Railroad] Kompleksnoe ispol'zovanie zheleznodorozhnogo, avtomobil'nogo i vodnogo transporta; iz opyta raboty IUgo-Zapadnoi zheleznoi dorogi. Kiev, 1960. 38 p. (Obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii Ukrainskoi SSR. Ser.7, no.2). (MIRA 13:3)
(Transportation) (Railroads)

SOLNYSHKOV, A. I. ; KOMAROV, V. P.; KUZNETSOV, V. S.; ABROYAN, M. A.; IVANOV, N. F. ZHELEZNIKOV, F. G.; ROYFE, I. M.; ZABLOTSKAYA, G. R.; IVLEV, I. V. ; LATMANISOVA, G. M. and GERASIMOV, V. P.

Current Injector for a Strong Focussed Linac.

report presented at the Intl. Conf. on High Energy Accelerators, Dubna, August 1963.

IVLEV, N., elektromontor.

Introduction of automatic vacuum drainage control. Zhil.-kom. khoz. 3 no.6:25-29 Je '53. (MLRA 6:7)

1. Pervaya nasosnaya stantsiya upravlyaemogo vakuumnogo drenazha Mosgorispolkoma. (Moscow--Sewerage)

IVLEV, N.,inzh.

Protective casings for mercury thermometers. Avt.dor. 23 no.11; 30 N'60. (MIRA 13:11)

(Thermometers)

IVLEV, N., inzh.

Machine for moistening soil. Avt.dor. 23 no.3:15 Mr '60. (MIRA 13:6)

(Road machinery)

IVLEV, N., referent

Processes in metals during sinoisoidol stress. (From: Stahl and Eisen, 5/6, 1953, p. 1503-15) Stal' 15 no.7:664-670 Jl '55.
(Metallography) (MLRA 8:9)

IVLEV, N., inzh.

Organization of soil compaction operations. Avt.dor. 24 no.6:13-14 Je '61. (MIRA 14:7)
(Soil stabilization) (Road construction)

IVLEV, N., inzh.

Water and heat conditions of the work of road structures in the steppes of Northern Caucasus. Avt.dor. 28 no.3:29-30 Mr '65.
(MIRA 18:5)

IVLEV, N.F.

Iron-manganese mineralization in Devonian sediments of the Kureyka Basin. Geol. i geofiz. no.3:112-115 '62. (MIRA 15:7)
(Kureyka Valley--Ferromanganese)

VOTAKH, O.A.; IVLEV, N.F.; MIKUTSKIY, S.P.

Pre-Cambrian of the Igarka region. Dokl.AN SSSR 154 no.6:1331-1333 F '64.
(MIRA 17:2)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR i Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya. Predstavleno akademikom A.A.Trofimukom.

IVLEV, Nikolay Georgiyevich; ZHURAVLEV, B.A., red.

[Safety manual for mechanics in the construction industry]
Pamiatka po tekhnike bezopasnosti dlia stroitel'nogo sle-
saria. Moskva, Stroiizdat, 1964. 70 p. (MIRA 17:8)

IVLEV, Nikolay Georgiyevich; CHEKHOVSKAYA, T.P., red.izd-va;
MOCHALINA, Z.S., tekhn. red.

[Booklet on protective clothing and individual protection measures] Pamiatka o spetsodezhde i sredstvakh individual'noi zashchity. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 30 p. (MIRA 15:3)
(Clothing, Protective)

IVLEV, Nikolay Georgiyevich

[Safety manual for employees working in high places]
Pamiatka po tekhnike bezopasnosti dlia rabotaiushchikh
na vysote. Moskva, Stroiizdat, 1965. 30 p.
(MIRA 18:12)

8(4) SOV/112-59-5-10339

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 273 (USSR)

AUTHOR: Ivlev, N. I., and Sychugov, N. A.

TITLE: Rational Electric Lighting for Animal Breeding Farms

PERIODICAL: Sb. stud. nauchn. rabot. Altaysk. s.-kh. in-t, 1957, Nr 6, pp 72-77

ABSTRACT: A scheme of automatic control for electric lighting at animal-breeding farms and the scheme components are described. The scheme comprises FS-K1 and FS-K2 photoresistors and an RK-1 photorelay which operates at 50-220 v. The cost of equipment is 200 rubles. It is stated that such an outfit can save electric energy because, otherwise, the electric lighting at animal-breeding farms is on for 24 hours a day.

A.A.M.

Card 1/1

IVLEV, N.P.

Effect of the granulometric composition on the water absorption capacity of soil bitumen mix. Trudy Khar. avt.-dor. inst. no.28:44-48 '62. (MIRA 17:2)

IVLEV, N. S. Lt. Col. Med. Service

"The Problem of Contraindications to Training Parachute Jumps and Seat Ejection," Voyenno-medits. zhur., No.4, pp. 50-53, 1957

Translation 1119947

ROGACHIKOV, G.I., inzh.; IVLEV, O.I., inzh.

Experimental study and final adjustment of the operating process of the Ch 8,5/11 diesel engine. Energomashinostroenie 11 no.6:15-20 Je '65. (MIRA 18:7)

IVLEV, P. F.

Ivlev, P. F. -- "The Working Out of the Biochemical Basis of the Technology of Wines of the Sherry Type." Krasnodar Inst of the Food Industry, Chair of the Technology of WineMaking, Krasnodar, "Soviet Kuban'," 1955 (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No 24, 11 June 1955, Moscow, Pages 91-104

IVLEV, P.M.

Role of oxygen in the sherry process. Izv. vys. ucheb. zav.; pishch. tekh. no. 2:34-42 '58. (MIRA 11:10)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Kafedra tekhnologii vinodeliya.

(Sherry)

AGABAL'YANTS, G.G.; IVLEV, P.F.; RYABCHENKO, I.M.

Nature of sherry yeast. Izv.vys.ucheb.zav.; pishch.tekh. no.1: 63-72 '59. (MIRA 12:6)

1. Krasnodarskiy institut pishchevoy promyshlennosti, kafedra tekhnologii vinodeliya.
(Yeast)

AGABAL'YANTS, G.G.; IVLEV, P.F.; RYABCHENKO, I.M.

Antagonism between yeasts. Trudy KIPP no.22:266-273 '61. (MIRA 16:4)

(Antibiosis) (Yeast) (Wine and winemaking)

IVLEV, P.F.

Film-forming and sherrizating capacity of some wine yeast strains.
Trudy KIPP no.22:274-288 '61. (MIRA 16:4)
(Sherry) (Yeast)

AGABAL'YANTS, G.G.; IVLEV, P.F.

Nature of the changes occurring in the nitrogen substances of wine during its sherrization. Trudy KIPP no.22:299-303 '61.
(MIRA 16:4)

(Wine and winemaking--Analysis) (Nitrogen)

IVLEV, S., general-mayor aviatsii, voyennyy letchik pervogo klassa

Tactical analysis of flights. Av. i kosm. 47 no.7:41-45 Jl '64.
(MIRA 17:7)

Ivlev, S.P.

SOV/86-59-1-32/39

AUTHOR: Ivlev, S.P., Guards Engr Lt Col

TITLE: Hard Times (V trudnyye dni)

PERIODICAL: Vestnik vozdushnogo flota, 1959, Nr 1, pp 77-83 (USSR)

ABSTRACT: The author narrates his experience during the Great Patriotic War, when he served as a flight technician in an Air Force squadron. There is one photo.

Card 1/1

IVLEV, V.

Finding homework for disabled workers. Prom.koop.no.8:36 Ag '56.
(Moscow--Disabled--Rehabilitation, etc.) (MLRA 9:10)

IVLEV, V.; STAKHURSKIY, A.Ye., red.; ARKHAROVA, L.Ya., red.izd-va; BEGICHEVA, M.N., tekhn.red.

[Homemade motion-picture printing machine] Samodel'nyi kino-kopiroval'nyi stanok. Moskva, M-vo kul'tury RSFSR, Izd-vo "Detskii mir", 1961. 1 fold. (Prilozhenie k zhurnalu "IUnyi tekhnik," no.8(98)) (MIRA 14:3)

1. TSentral'naya stantsiya yunykh tekhnikov, Moscow.
(Amateur motion pictures--Equipment and supplies)

SHENDEROVICH, M.B., LERNER, Yu.S.; RUDENKO, V.A.; KLIMENT'YEV, I.D.; IVLEV, V.A.

Magnesium cast iron castings for agricultural machinery. Lit. proizv. no.1:35 Ja '65. (MIRA 18:3)

IVLEV, V.A.; KOSTETSKIY, I.I.

Magnetic methods and equipment for controlling the structure of cast iron with spheroidal graphite. Defektoskopiia 1 no.3:43-53 '65. (MIRA 18:8)

1. TSentral'nyye konstruktorsko-tekhnologicheskoye byuro Upravleniya po razvitiyu kuznechnogo-pressovogo i liteynogo mashinostroyeniya Gosudarstvennogo komiteta po mashinostroyeniyu pri Gosplane SSSR, Odessa.

IVLEV, V.F., assistent

Conversion of peptic ulcer into cancer. Sbor. trud. Kursk. gos. med. inst. no.13:98-101 '58. (MIRA 14:3)

1. Iz kliniki gospital'noy khirurgii (zav. - prof. A.V.Belichenko [deceased]) Kurskogo gosudarstvennogo meditsinskogo instituta.
(PEPTIC ULCER) (CANCER)

IVLEV, V.F., assistent

Clinical and morphological parallels in peptic and duodenal ulcer.
Sbor. trud. Kursk. gos. med. inst. no.13:102-105 '58.
(MIRA 14:3)

1. Iz kliniki gospital'noy khirurgii (zav. - prof. A.V.Belichenko)
Kurskogo gosudarstvennogo meditsinskogo instituta.
(PEPTIC ULCER)

IVLEV, V.F.

External intestinal fistulas. Khirurgiia 34 no.9:87-91 S '58.
(MIRA 12:4)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. A.V. Belichenko) Kurskogo meditsinskogo instituta (dir. - prof. A.V. Savel'yev).
(FISTULA) (INTESTINES--ABNORMITIES AND DEFORMITIES)

IVLEV, V.F.

Simple method for counting an excessively rapid pulse in children.
Pediatriia 38 no.12:51 '60. (MIRA 14:2)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. A.V. Belichenko) Kurskogo meditsinskogo instituta (dir. - prof. A.V. Savel'yev).
(PULSE)

IVLEV, V.F.

Content of free hydrochloric acid and late results of gastric resection in perforating ulcer. Sov. med. 28 no.1:49-55 Ja '65. (MIRA 18:5)

1. Kafedra gospital'noy khirurgii (zav. - prof. A.V. Kholod) Kurskogo meditsinskogo instituta.

IVLEV, V. F. PA 175T104

USSR/Physics - Magnetization, Reversals 11 Jan 51

"Method of Investigation of Irreversible Discontinuities in Magnetic Reversals," B. F. Tsomakion, V. F. Ivlev, Pedagogical Inst, Krasnoyarsk

"Dok Ak Nauk SSSR" Vol LXXVI, No 2, pp 205-208

Outlines method of exptl detn of av value of ferromagnetic action by photo-record of discontinuities. Describes equipment and computing methods.

175T104

CA IVLEV, V.F.

Phenomenon of reverse inversion in ferromagnetic substances. L. V. Kirenskii and V. F. Ivlev (Krasnoyarsk State Pedagogy Inst.). *Doklady Akad. Nauk S.S.S.R.* 76, 389-91 (1951).—The inversion step in the magnetization of a ferromagnetic substance was studied by recording the Barkhausen jumps and the induction current due to abrupt changes of magnetization in the sample (a Ni cylinder) during the smooth and gradual increase of the magnetizing field. The rate of change of the field was varied from 1 to 0.001 oersteds/sec. Barkhausen jumps were recorded for domains of spontaneous magnetization as small as 1×10^{-9} cc. In addn. to the Barkhausen jumps, reverse jumps were observed corresponding to a decrease of the magnetization vector during the increase of the field. This was called the effect of reverse inversion. For Ni the no. of reverse jumps was about 35% of the no. of forward jumps, and the effect was observed on the hysteresis loop as well as on the initial magnetization curve. Reverse inversion was attributed in part to eddy currents which occur in parts of the ferromagnetic substance when forward inversion occurs in neighboring domains.

Ellen H. Dunlap

IVLEV, V. F.

"Temperature Dependence of Irreversible Jumps of Remagnetization," Iz. Ak. Nauk SSSR, Ser. Fiz., 16, No.6, pp 664-672, 1952.

Krasnoyarsk State Pedagogic Inst.

An expt on a Ni wire annealed at 800° C, Vol $24.6.10^{-6}$ cm^3, with description of method of measurements and results. Increasing temp affects the narrowing of fields (in) which jumps occur. Indebted to B. F. Tsomakion and L. V. Kirenskiy.

251T34

IVLEV, V.F.

Temperature dependence of irreversible rapid changes in magnetization. Uch. zap. Mosk. un. no.162:177-181 '52. (MLRA 8:7)
(Ferromagnetism)

Cand. Physico-Mathematical Sci.

IVLEV, V. P.

"Temperature Dependence of Irreversible Jumps in Reversal of Magnetism." Sub 22 Mar 51, Moscow Oblast Pedagogical Inst.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

IVLEV, V. F., DROKYN, A. I., VTYURIN, N. I., VLASOV, A. I., KIRENSKIY, L. V. and TUKALOV, R. I., (Krasnoyarsk)

"The Temperature and Rotation Hysteresis in Ferromagnetic Materials," a paper submitted at the International Conference on Physics of Magnetic Phenomena, Sverdlovsk, 23-31 May 56.

IVLEV, V. F., ILYUSHENKO, V. L., ASEYEVA, L. S. and LIPKIN, A. S. (Krasnoyarsk)

"The Study of Irreversible Jumps of Magnetic Reversal in Ferromagnetic Substances," paper presented at the International Conference on Physics of Magnetic Phenomena, Sverdlovsk, USSR, 23-31 May 1956.